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July 27, 2006

VIA HAND DELIVERY

The Honorable Charles L.A. Terreni
Chief Clerk and Administrator
The Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

RE: Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC ("Duke Energy Carolinas") Annual Review of Base Rates for Fuel Costs. Docket No. 2006-3-E
Motion for Confidential Treatment

Dear Mr. Terreni:

Pursuant to the Public Service Commission of South Carolina ("Commission") Scheduling Order issued in the above-referenced docket, Duke Energy Carolinas, through counsel, hereby files ten copies of the direct testimonies and exhibit(s) of Duke Energy Carolinas' witnesses Janice D. Hager, Ronald A. Jones, M. Elliott Batson, and William R. McCollum, Jr.

Certain information contained in Ms. Hager's and Mr. Jones' testimonies and exhibit(s) is confidential, therefore, pursuant to Order No: 2005-226, "ORDER REQUIRING DESIGNATION OF CONFIDENTIAL MATERIALS", we enclose the referenced confidential material in a separate envelope marked, "Confidential". The ten copies of Ms. Hager's and Mr. Jones' testimonies and exhibit(s) filed today are redacted.

Ms. Hager's and Mr. Jones' un-redacted testimonies and exhibit(s) contain confidential information which is proprietary and/or commercially sensitive and/or competitively sensitive and/or confidential and/or trade secrets, pursuant to 26 S.C. Code Ann. Regs. 103-804(Y)(2)(Cum. Supp. 2005).

Please consider this correspondence as Duke Energy Carolinas' Motion to accord confidential treatment to Ms. Hager's and Mr. Jones' testimonies and exhibit(s) so designated.

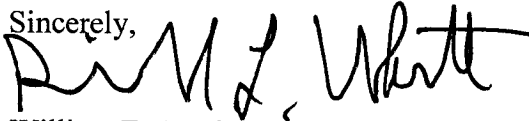
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SERVICE: OK

The Honorable Charles L.A. Terreni
July 27, 2006
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By copy of this correspondence, Duke Energy Carolinas serves the testimonies and exhibit(s) referenced hereinabove on all parties of record to this proceeding. All parties of Record have previously entered into Confidentiality Agreements with Duke Energy Carolinas, and therefore the confidential portion of Ms. Hager's and Mr. Jones' testimonies and exhibit(s) is provided to all parties of Record pursuant to such Agreements and 26 S.C. Code Ann. Regs. 103-804(Y)(2)(Cum. Supp. 2005).

With kind regards, we are

Sincerely,

A handwritten signature in black ink, appearing to read "W. F. Austin, R. L. Whitt". The signature is fluid and cursive, with the first name and last name of each person clearly distinguishable.

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RLW/kmb

cc: C. Lessie Hammonds, Esquire
Wendy B. Cartledge, Esquire
Nanette Edwards, Esquire
(All of the South Carolina Office of Regulatory Staff)
Scott Elliott, Esquire

TESTIMONY OF
M. ELLIOTT BATSON

FOR

DUKE ENERGY CAROLINAS

PSCSC Docket No. 2006-003-E

1 Q. PLEASE STATE YOUR NAME, ADDRESS AND POSITION WITH DUKE ENERGY.

2 A. My name is Elliott Batson and my business address is 526 South Church Street, Charlotte,
3 North Carolina. I am Manager, Coal and Bulk Material Procurement of Duke Power
4 Company LLC d/b/a Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or "the
5 Company").

6 Q. STATE BRIEFLY YOUR EDUCATION, BUSINESS BACKGROUND AND
7 PROFESSIONAL AFFILIATIONS.

8 A. I am a 1985 graduate of the University of South Carolina with a Bachelor of Science in
9 Business Administration. I have been employed with Duke Energy since 1986 and have
10 worked in the Fossil Fuel Procurement area since 1990. I am a member of the North
11 Carolina Coal Institute.

12 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

13 A. The purpose of my testimony is to furnish information relating to the Company's fossil fuel
14 purchasing practices and costs for the period July 2005 through June 2006 and describe
15 any changes forthcoming in the 2006 and 2007 forecast period.

16 Q. YOUR TESTIMONY INCLUDES EXHIBITS. WERE THESE EXHIBITS PREPARED BY
17 YOU OR AT YOUR DIRECTION AND UNDER YOUR SUPERVISION?

18 A. Yes. Each of these exhibits was prepared either by me or at my direction and under my
19 supervision.

1 Q. MR. BATSON, CAN YOU PROVIDE A SUMMARY OF DUKE ENERGY CAROLINAS'
2 FUEL PROCUREMENT PRACTICES?

3 A. Yes. The Company continues to follow the same procurement practices that it has
4 historically followed, and a summary of those practices can be found in Batson Exhibit 1.

5 Q. WHAT IS SHOWN ON BATSON EXHIBIT 2?

6 A. Batson Exhibit 2 is a statistical summary for each fossil fuel category for the period July
7 2005 through June 2006. The exhibit includes the quantities consumed, quantities
8 purchased, and the 12-month weighted average purchase price for each fuel. Due to the
9 fact that several components make up the total cost of coal, coal statistics are broken
10 down to show the average freight on board ("f.o.b.") mine cost, the transportation cost, and
11 the delivered cost per million British Thermal Units ("BTUs").

12 The delivered cost per ton of coal increased approximately 15% from an average
13 of \$51.92 for the prior period (April 2004 to June 2005) to an average of \$60.07 for the test
14 period (July 2005 to June 2006). This increase is due to increasing mine cost for coal and
15 increasing transportation costs. As I have testified in prior fuel cost adjustment
16 proceedings, the market price for coal significantly increased 2 to 3 years ago. Because
17 Duke Energy Carolinas purchases a large percentage of its coal supply under 1 to 3 year
18 contract arrangements, it has benefited from lower priced, longer term contracts
19 negotiated prior to the market increases, which resulted in significantly lower average coal
20 mine costs in 2005 as compared to prevailing market prices. This approach saved
21 approximately \$200 million in coal mine costs as compared to the market cost during the
22 test period (see Batson Exhibit 3 for a summary of Central Appalachia market prices
23 compared to average Duke Energy Carolinas coal costs). However, as the Company's
24 older, existing coal contracts expire, they are replaced at the current market prices. As a
25 result, the average mine price increased approximately 20% from \$35.07 per ton of coal

1 during the prior period to an average mine price of \$42.07 per ton of coal during the test
2 period.

3 The average transportation rate increased approximately 7% from \$16.85 per ton
4 to \$17.99 per ton as compared to the review period. This increase is due to (1) increases
5 in fuel surcharges applied by the railroads as a result of increasing fuel oil prices and (2)
6 contractual escalations for freight rates paid in 2005. Total transportation costs constituted
7 30% of the Company's total delivered cost of coal during the review period.

8 The average oil cost for the test period increased 50% or \$0.64/gal based on the
9 previous 12 month period ending June 2005. This sharp increase is primarily attributed to
10 supply and refinery disruptions following Hurricanes Katrina and Rita in the fall of 2005,
11 continued strong economic demand, and commodity market fears due to conflicts in the
12 Middle East. Duke Energy Carolinas consumed less oil during the test period compared to
13 the previous review period ending June 2005. Average natural gas costs during the test
14 period increased 37% to \$10.05/Mcf (per thousand cubic feet) when compared to the
15 previous review period ending June 2005. This increase is primarily attributed to the
16 impact of the hurricanes and fears over reduced gas storage inventories prior to the winter
17 season. Duke Energy Carolinas consumed 29% more volume of natural gas during the
18 test period as compared to the prior period; however, oil and natural gas combined
19 accounted for only 2% of the Company's total fuel costs during the test period.

20 Q. WHAT CHANGES DO YOU SEE IN THE COMPANY'S COST OF COAL IN 2006 AND
21 2007?

22 A. As I noted previously, as Duke Energy Carolinas' older, below market cost coal contracts
23 expire, they are replaced at market prices significantly higher than originally contracted.
24 Current market prices based on recent offers from several producers from the Company's
25 Spring 2006 Request for Proposal ("RFP") and forward coal prices as published by coal

1 brokers indicate Central Appalachia coal mine prices per ton are in the upper \$40s to low
2 \$50s for contract arrangements for delivery in 2007 and in the upper \$40s for near term
3 spot arrangements. As a result, the Company's average cost of coal will be increasing in
4 the 2006 and 2007 forecast period to the mid to upper \$40s per ton. This average cost of
5 coal is consistent with the projected market price for Central Appalachia coal. (See
6 Batson Exhibit 3) All new term contract purchases will be competitively bid and negotiated
7 in accordance with Duke Energy Carolinas' fuel purchasing practices described in Batson
8 Exhibit 1. Current market prices are lower than prices in the summer of 2005. Prices last
9 year were in the mid to upper \$50s per ton for delivery in 2006. The primary reasons for
10 declining prices are (1) a reduction in demand for coal due to mild weather in 2006, (2) a
11 slight increase in Central Appalachia coal production and (3) improving coal inventories
12 throughout the eastern United States. These changes provide increased leverage for
13 buyers as compared to last year. It is still too soon to determine if these changes represent
14 longer term fundamental changes to the market. Coal suppliers are unwilling to offer
15 longer term contracts at these prices. As such, we anticipate coal market prices will
16 remain volatile over the next year. Duke Energy Carolinas expects to have over 90% of
17 the expected coal supply needs for 2007 contracted by September 2006.

18 I previously testified in the Company's fuel cost adjustment proceeding in Docket
19 No. 2005-3-E regarding the purchase of synthetic fuel ("synfuel") from facilities located at
20 Duke Energy Carolinas' Belews Creek and Marshall Steam Stations. These purchases
21 resulted in savings of over \$14 million in 2005. However, due to factors which impacted
22 the availability of the federal tax credits that these synthetic fuel producers have historically
23 received, these synfuel facilities ceased operations in the spring of 2006. It is uncertain if
24 either of these facilities will operate in the future and generate savings for the forecast
25 period. The Company will continue to purchase synfuel in the market as opportunities

1 arise at prices which may, depending on market conditions, reflect a discount to coal
2 prices.

3 Duke Energy Carolinas maintains multi-year rail contract arrangements with the
4 Norfolk Southern Railway Company and CSX Transportation for delivery of coal. The
5 Company is not aware of any significant changes in transportation costs in 2006 and 2007,
6 with the exception of: (1) fuel surcharges tied to the price per barrel of oil are expected to
7 continue to apply and increase in 2006 as fuel oil prices remain high and (2) rail contract
8 prices increase for inflationary factors pursuant to the terms and conditions of the
9 contracts. The future activities of the railroads and the Surface Transportation Board will
10 continue to impact the Company's level of service and cost of rail transportation. As such,
11 the Company supports legislative and regulatory efforts to promote competition as well as
12 to ensure reasonable rates in the railroad industry.

13 Q. WHAT IS THE COMPANY'S VIEW OF THE LONGER TERM MARKET DRIVERS FOR
14 ITS COAL SUPPLY SOURCES?

15 A. Duke Energy Carolinas' coal facilities are designed to operate using a typical Central
16 Appalachia coal with the following approximate characteristics: 12,000 BTU, 12% ash and
17 1% sulfur content. Due to these operational issues and geographic factors affecting the
18 delivered cost economics of coal, the Company expects to continue to purchase a
19 significant amount of its coal supply from the Central Appalachia coal supply region.
20 Although coal prices are lower in the summer of 2006 compared to the summer of 2005,
21 this region has seen dramatic increases in market prices over the last several years.
22 Primary reasons include increasing domestic and international demand for coal, a limited
23 production response to this increased demand especially in Central Appalachia, increasing
24 mining operating costs, high natural gas prices and transportation complexities associated
25 with alternative coal sources. Central Appalachian coal production remained relatively flat

1 between 2004 and 2005 despite continuing high market prices compared to prior years.
2 Production has increased only slightly in 2006 compared to 2005. This limited production
3 response is attributable to stringent environmental regulations and lengthy permitting
4 requirements, and the necessity of mining in more remote coal seams and under more
5 difficult conditions as the coal reserve base depletes. Mining operating costs continue to
6 have upward pressure due to higher petroleum and steel costs, higher labor costs due to a
7 shrinking skilled work force, declining mining productivity, tighter truck-hauling restrictions
8 and a greater focus on safety as a result of several mine fatalities in early 2006. Since
9 there is no competing generation fuel between coal and natural gas, the continued high
10 price of natural gas has created a high "ceiling" rate for coal prices. As coal consumers
11 seek alternative coal sources, options are limited due to transportation constraints and
12 complexities with moving coal over new and longer routes. Changes in transportation
13 patterns take considerable time to develop and implement because railroads must
14 reallocate crews, equipment and upgrade infrastructure. These market fundamentals
15 appear strong and will likely cause upward pressure on market conditions and prices over
16 the long term.

17 Q. GIVEN THESE MARKET FUNDAMENTALS, WHAT STEPS IS DUKE ENERGY
18 CAROLINAS TAKING TO CONTROL ITS COAL COSTS?

19 A. As a result of these market fundamentals which indicate continued upward pressure on
20 Central Appalachia coal prices, continued price volatility and declining supply, it is
21 important for Duke Energy Carolinas to pursue initiatives that will limit exposure to regional
22 coal market price increases and help control and stabilize coal costs in general. Duke
23 Energy Carolinas continues to take action to enhance a comprehensive coal procurement
24 strategy that reduces the risk of extreme volatility in average coal costs. Aspects of this
25 strategy include having the appropriate mix of contract and spot purchases, staggering

1 contract expirations such that the Company is not faced with price changes for a
2 significant percentage of purchases at any one time, pursuing contract extension options
3 that provide flexibility to extend terms within some price collar and developing a diverse
4 coal supply portfolio from different coal supply regions as they become feasible and
5 economical. The Company is developing the ability to burn non-Central Appalachia and
6 non-traditional Central Appalachia coal primarily through coal blending at certain of its
7 facilities in order to take advantage of market opportunities to reduce coal costs as they
8 come about. Duke Energy Carolinas, which typically issues two RFPs a year addressing
9 longer term purchases, plans to issue future RFPs that address coal supply from
10 throughout the United States and international sources. The Company will be evaluating
11 operational plant issues associated with non-Central Appalachia and non-traditional
12 Central Appalachia coal as well as working closely with the appropriate railroads to
13 develop the needed infrastructure to deliver this coal. This approach will analyze current
14 opportunities to diversify away from Central Appalachia and provide on-going flexibility to
15 take advantage of purchase opportunities in changing domestic and international market
16 conditions. Additionally, Witness McCollum discusses potential future generation resource
17 options that may have an impact on the Company's future fuel supply needs, including the
18 ability to further diversify its coal supply.

19 Q. WHAT STEPS HAS DUKE ENERGY CAROLINAS TAKEN TO IMPLEMENT THIS
20 STRATEGY?

21 A. To support its evaluation of non-traditional coals, the Company performed test burns on
22 several non-Central Appalachia coals in 2005 and 2006 including coals from Wyoming's
23 Powder River Basin, Pennsylvania's Northern Appalachia Basin and imported coal from
24 South America. This market, operational and capital cost evaluation, which essentially
25 evaluates the use of these non-Central Appalachia and non-traditional coals on a total cost

1 basis, will analyze current and future opportunities to diversify the Company's coal supply
2 with the result being able to provide on-going flexibility to take advantage of least cost
3 purchase opportunities in changing domestic and international market conditions. We
4 expect non-Central Appalachia coals could represent as much as 15% of the Company's
5 total coal supply in 2007 as coal, rail and port conditions develop and stabilize. This
6 change is driven by improved operating infrastructure that increases the port capacity in
7 Charleston, South Carolina, for imported coals and by a coal supply agreement for
8 Northern Appalachia coal beginning in late 2006 that will be consumed at the Marshall
9 Steam Station once the sulfur dioxide controls – "scrubbers" – being installed at that facility
10 are operational.

11 Q. WHAT IS SHOWN ON BATSON EXHIBIT 4?

12 A. Batson Exhibit 4 shows inventories for coal and oil at the beginning and end of this
13 reporting period. Coal inventories increased from 2,392,767 tons as of June 30, 2005, to
14 2,610,483 tons as of June 30, 2006. This increase is primarily due to a more moderate
15 coal burn in 2006 resulting from above average winter temperatures. This increase brings
16 the Company's system level of coal inventory to slightly above the target level prior to the
17 summer peak period. Duke Energy Carolinas expects to maintain appropriate inventory to
18 support consumption requirements and will continue to closely monitor coal supplier and
19 railroad performance.

20 Oil inventories as of June 30, 2006, remained approximately the same as the June
21 30, 2005, ending inventory.

22 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

23 A. Yes, it does.

Duke Energy Carolinas' Fossil Fuel Procurement Practices

The Company's fossil fuel procurement practices are summarized below.

Coal

- Near and long-term consumption forecasts are computed based on factors such as: load projections, fleet maintenance and availability schedules, coal quality and cost, environmental permit and emissions considerations, wholesale energy imports and exports.
- Station and system inventory targets are determined and designed to provide: reliability, insulation from short-term market volatility, and sensitivity to evolving coal production and transportation conditions. Inventories are monitored continuously.
- On a continuous basis, existing purchase commitments are compared with consumption and inventory requirements to ascertain additional needs.
- Qualified suppliers are invited to make proposals to satisfy any additional or future contract needs.
- Contracts are awarded based on the lowest evaluated offer, considering factors such as price, quality, transportation, reliability and flexibility.
- Spot market solicitations are conducted on an ongoing basis to supplement the contract structure.
- Delivered coal volume and quality are monitored against contract commitments. Coal and freight payments are calculated based on weights registered by the Company's scale system and coal quality analysis as conducted by Duke Energy Carolinas' Central Fuels Laboratory.

Natural Gas

- Near and long-term consumption forecasts are generated by the same system that produces coal estimates. Gas is burned exclusively in peaking assets – combustion turbines.
- Gas is not locally inventoried, but rather scheduled and delivered via pipeline on a daily basis. Oil is burned when gas is not economically available.
- In response to annual solicitation, suppliers submit proposals to provide bundled supply service to peaking facilities. This service consists of the commodity (gas), its transportation (pipeline), storage, and balancing services.
- Contracts are awarded based on the lowest evaluated offer, considering factors such as price, responsiveness, reliability, and best operational fit.

Fuel Oil

- Consumption forecasts are generated by the same system that produces coal estimates. No. 2 diesel is burned for initiation of coal combustion (light-off at steam plants) and in combustion turbines (peaking assets).
- All diesel fuel is moved via pipeline to terminals where it is then loaded on trucks for delivery into the Company's storage tanks. Because oil usage is highly variable, Duke Energy Carolinas relies on a combination of inventory and reliable suppliers who are responsive and can access multiple terminals. Diesel is replaced on an "as needed basis" as called for by station personnel with guidance from fuel procurement staff.
- Formal solicitation for supply is conducted annually. Contracts are awarded based on the lowest evaluated offer with special value on suppliers demonstrated ability to move large volumes of fuel with minimal notice.

FUEL PURCHASES AND CONSUMPTION
JULY 2005 - JUNE 2006COAL

Tons Burned	17,961,627
Tons Purchased	18,211,241
Avg. Mine Price/Ton	\$42.07
Avg. Freight Price/Ton	\$17.99
Avg. Delivered Price/Ton	\$60.07
Avg. Delivered Price/MBTU	\$2.4980

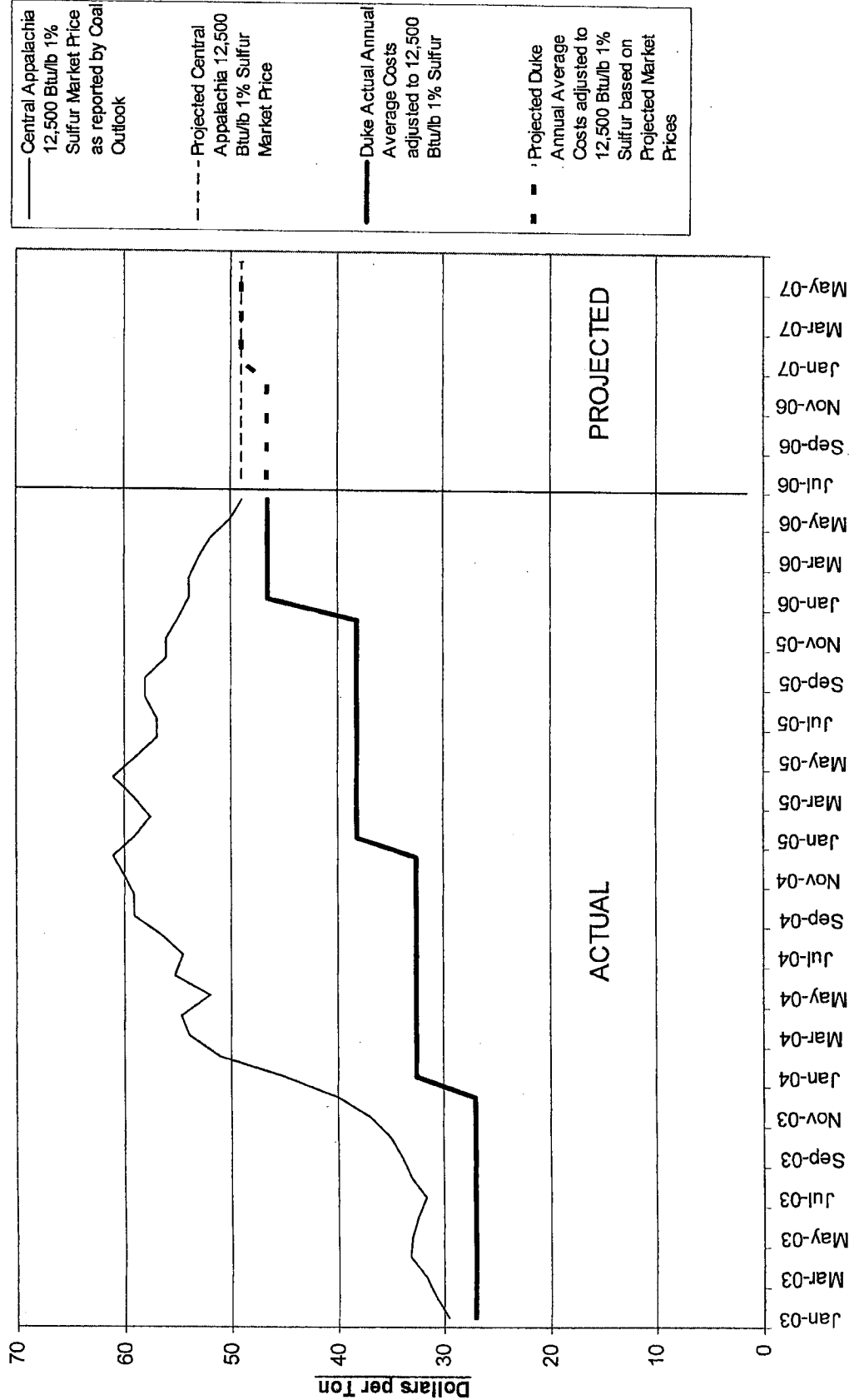
OIL

Gallons Consumed	10,546,555
Gallons Purchased	11,670,665
Avg. Price/Gallon Purchased	\$1.8767

NATURAL GAS

Mcf. Purchased	1,158,689
Avg. Price/Mcf.	\$10.05

Comparison of Market Coal Prices to Duke Average Coal Costs



BATSON EXHIBIT 4

FUEL INVENTORIES

	<u>06/30/05</u>	<u>06/30/06</u>
COAL (TONS)	2,392,767	2,610,483
#2 OIL (GALLONS)	17,614,923	18,001,502

TESTIMONY OF WILLIAM R. McCOLLUM, JR.

FOR

DUKE ENERGY CAROLINAS

PSCSC DOCKET NO. 2006-003-E

1 Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH
2 DUKE ENERGY CAROLINAS.

3 A. My name is William R. McCollum, Jr. My business address is 526 South Church
4 Street, Charlotte, North Carolina. I am Group Vice President, Regulated
5 Fossil/Hydro Generation for Duke Power Company LLC d/b/a Duke Energy
6 Carolinas, LLC ("Duke Energy Carolinas" or "the Company").

7 Q. WHAT ARE YOUR PRESENT RESPONSIBILITIES AT DUKE ENERGY
8 CAROLINAS?

9 A. I am responsible for the safe, reliable and efficient operation of all of Duke Energy
10 Carolinas' regulated fossil-fueled (coal, gas/oil) and hydroelectric generating
11 facilities in the Carolinas and Midwest.

12 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND
13 PROFESSIONAL EXPERIENCE.

14 A. I graduated from the Georgia Institute of Technology with a Bachelor of Science
15 degree in electrical engineering and a Master of Science degree in nuclear
16 engineering. I also received a Master of Business Administration degree from the
17 University of North Carolina at Charlotte. I joined Duke Energy Carolinas in 1974
18 as a junior engineer at Oconee Nuclear Station. After a series of promotions, I
19 was named manager of performance at Catawba Nuclear Station in 1981,
20 supporting initial startup and operation; superintendent of integrated scheduling in

1 1985; superintendent of station services in 1988; and superintendent of
2 maintenance in 1989. I was named Catawba station manager in 1990 and vice
3 president of Catawba Nuclear Station in 1994. In 1997, I was named vice
4 president of Oconee Nuclear Station. I was named senior vice president of nuclear
5 support in September 2002, and vice president of nuclear support in March 2004. I
6 was named vice president of strategy and business development for Duke Energy
7 Carolinas in March 2005 and transitioned into my current position in April 2006. I
8 am a registered professional engineer in North Carolina and South Carolina. I
9 have held a Nuclear Regulatory Commission-issued senior reactor operator
10 license for Catawba Nuclear Station.

11 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

12 A. The purpose of my testimony is to discuss the performance of Duke Energy
13 Carolinas' fossil-fueled and hydroelectric generating facilities during the period of
14 July 1, 2005 through June 30, 2006. In addition, I will provide an overview of Duke
15 Energy Carolinas' overall generation portfolio and its operation.

16 Q. MR. MCCOLLUM, PLEASE DESCRIBE DUKE ENERGY CAROLINAS'
17 GENERATION PORTFOLIO.

18 A. Duke Energy Carolinas' generation portfolio consists of approximately 18,300
19 MWs of generating capacity, made up as follows:

20 Nuclear generation - 5,000 MWs (including Duke Energy Carolinas'
21 12.5% ownership of the Catawba Nuclear Plant)

22 Coal-fired generation - 7,700 MWs

23 Hydroelectric - 3,200 MWs

24 Combustion Turbines - 2,400 MWs (Combustion turbines can
25 operate on natural gas or fuel oil)

1 Witness Jones will discuss the nuclear fleet in his testimony.

2 Q. PLEASE PROVIDE A GENERAL DESCRIPTION OF HOW THE DIFFERENT
3 UNITS OPERATE.

4 A. Duke Energy Carolinas operates a diverse mix of units that allow the Company to
5 meet the continuously changing customer load pattern in a logical and cost-
6 effective manner. The cost and operational characteristics of each unit generally
7 determine the type of customer load situation that the unit would be called upon to
8 support. These units can be divided into three operational categories: base load,
9 intermediate and peaking.

10 Base load units typically have very low operating costs but relatively high
11 initial capital costs to install. These larger units are called upon first to support
12 customer load requirements and thus run almost continuously. Duke Energy
13 Carolinas' seven nuclear units and the seven largest coal fired units (two units at
14 Belews Creek, one unit at Cliffside, four units at Marshall) operate under these
15 base load conditions.

16 Intermediate units are dispatched next to support customer demand,
17 ramping up and down throughout each day to match load requirements as they
18 change. These units take time to ramp up from a cold shut down and are best
19 used to respond to more predictable system load patterns. This intermediate fleet
20 is made up of thirteen coal units (five units at Allen, two units at Buck, one unit at
21 Dan River, one unit at Lee and four units at Riverbend). During periods of highest
22 customer demand, many of these units will also operate at maximum capacity and
23 almost continuously along with the base load units discussed above.

24 Peaking units typically have higher operating costs but lower initial capital
25 costs to install than base load or intermediate units. They have the ability to be

1 started quickly in response to a sharp increase in customer demand, without
2 having to operate continuously. These peaking units are called upon when
3 customer demand is high and thus have lower capacity factors than the base load
4 or intermediate units. The remaining ten smallest coal units (two units at Buck,
5 four units at Cliffside, two units at Dan River, and two units at Lee) as well as the
6 entire gas/oil-fired combustion turbine fleet and entire hydroelectric fleet make up
7 this peaking category. The Company's hydroelectric and combustion turbine units
8 are especially good for supporting abrupt changes in load demand as their
9 generation output can usually ramp up or down very quickly.

10 The base load, intermediate, and peaking nature of units can best be
11 demonstrated by looking at each unit's capacity factors. Capacity factor is a
12 measure of total kWhs a generating unit provides annually as compared to what it
13 could theoretically provide if it ran every hour of the year at its maximum expected
14 output. Duke Energy Carolinas' nuclear units typically operate at capacity factors
15 above 90%. The Company's largest base load coal units typically operate at
16 capacity factors above 75%. Intermediate units typically operate at capacity
17 factors above 40%, and the remaining peaking units typically operate at capacity
18 factors less than 40%. Some of the smallest combustion turbine and hydroelectric
19 peaking units can even operate with capacity factors lower than 5%.

20 Q. HOW DOES THE COMPANY DECIDE WHEN TO OPERATE EACH TYPE OF
21 GENERATOR?

22 A. Each day, Duke Energy Carolinas selects the combination of Company-owned
23 generating units and available power purchases that will reliably meet customer
24 needs in a least cost manner. Units with the lowest operating costs (fuel, emission
25 allowances and variable operations and maintenance costs, etc.) are dispatched

1 first, with higher cost units added as load increases. Intraday adjustments are
2 made to reflect changing conditions and purchase opportunities.

3 Q. PLEASE DESCRIBE HOW PURCHASES OF POWER FROM OTHER
4 SUPPLIERS FIT INTO THIS PROCESS.

5 A. The Company monitors the energy market, evaluating long-term, seasonal,
6 monthly, weekly, daily and hourly purchase opportunities. In making these daily
7 decisions on which resources should be used to meet customer needs, the
8 Company may purchase energy from other suppliers, whether under long-term
9 capacity agreements that the Company has entered into or short-term spot market
10 purchases to ensure it selects the most cost-effective, reliable solution.

11 Q. WHAT ARE THE COMPANY'S OBJECTIVES IN THE OPERATION OF ITS
12 FOSSIL AND HYDRO GENERATION ASSETS?

13 A. The primary objective of Duke Energy Carolinas' Fossil/Hydro generation
14 department is to safely provide reliable and cost effective electricity to our
15 Carolinas customers. This objective is achieved through our focus in a number of
16 key areas. Operations personnel and other station employees are well trained and
17 execute their responsibilities to the highest standards, in accordance with
18 procedures, guidelines and a standard operating model. We achieve compliance
19 with all applicable environmental regulations. We maintain station equipment and
20 systems in a cost-effective manner to maintain reliability. We take action in a timely
21 manner to implement work plans and projects that enhance the performance of
22 systems, equipment and personnel, consistent with providing low cost power to our
23 customers. Equipment inspection and maintenance outages are scheduled when
24 appropriate; are well-planned and executed with quality, with the primary purpose
25 of preparing the plant for reliable operation until the next planned outage.

1 Q. HOW MUCH ELECTRICITY DID THE COMPANY GENERATE BY EACH TYPE
2 OF UNIT DURING THE TEST PERIOD?

3 A. For the test period from July 2005 through June 2006, the Company generated
4 108,660,300 MW-hrs of electricity. The nuclear units provided approximately 53%
5 of Duke Energy Carolinas' total generation, the coal units provided 42%, the
6 hydroelectric system provided 5% (before reductions for megawatt-hours used for
7 pumped storage), and the combustion turbines provided less than 1%.

8 Q. WHAT HAS BEEN THE HEAT RATE OF DUKE ENERGY CAROLINAS' COAL
9 UNITS DURING THE TEST PERIOD?

10 A. Over this same time period, the average heat rate for the coal fleet was 9,597
11 BTU/kWh. Heat rate is a measure of the amount of thermal energy needed to
12 generate a given amount of electric energy and is expressed as BTUs per kilowatt-
13 hour (BTU/kWh). A low heat rate indicates an efficient generating system that
14 uses less heat energy from fuel to generate electrical energy. Duke Energy
15 Carolinas has consistently been an industry leader in achieving low heat rates. In
16 the November 2005 issue of *Electric Light and Power* magazine, Duke Energy
17 Carolinas' Marshall Steam Station and Belews Creek Steam Station ranked as the
18 country's second and third most energy efficient coal-fired generators, respectively.
19 In this publication, the Marshall Steam Station heat rate was calculated at 9,044
20 BTU/kWh, and the Belews Creek Steam Station heat rate was calculated at 9,163
21 BTU/kWh.

22 Q. PLEASE DISCUSS THE PERFORMANCE OF DUKE ENERGY CAROLINAS'
23 FOSSIL GENERATING SYSTEM DURING THE TEST PERIOD.

24 A. Duke Energy Carolinas' generating system operated efficiently and reliably during
25 the test period. Two key measures are used to evaluate the performance of

1 generating facilities: equivalent availability factor and capacity factor. Equivalent
2 availability factor refers to the percent of a given time period a facility was available
3 to operate at full power if needed. Availability factor is not affected by the manner
4 in which the unit is dispatched or by the system demands; however, it is impacted
5 by planned and forced outage time. Capacity factor measures the generation a
6 facility actually produces against the amount of generation that theoretically could
7 be produced in a given time period, based upon its maximum dependable capacity.
8 Capacity factor is affected by the dispatch of the unit to serve customer needs.
9 Given the different operating characteristics it is appropriate to evaluate these
10 factors based on the operational categories discussed above -- base load,
11 intermediate and peaking.

12 Duke Energy Carolinas' seven base load coal units achieved results of
13 86.5% equivalent availability factor and 77.1% capacity factor over the test period.
14 During the peak summer season within this test period, these base load units
15 achieved excellent results of 93.4% equivalent availability factor and 86.4%
16 capacity factor. The Company's thirteen intermediate coal units achieved results
17 of 84.7% equivalent availability factor and 54.8% capacity factor over the test
18 period, improving further during the summer peak months to 88.6% equivalent
19 availability and 65.7% capacity. Consistent with their load following use, mild
20 weather and the comparatively large nuclear base load composition of the
21 Company's generation fleet impacted the capacity factor results of these units.
22 Duke Energy Carolinas' ten peaking coal units achieved results of 89.7%
23 equivalent availability factor and 32.7% capacity factor, improving further during
24 the summer peak months to 91.3% equivalent availability and 47.4% capacity.
25 The Company's combustion turbines were available for use as needed but were

1 required to run only infrequently due to the mild weather in this time period. These
2 factors are consistent with the intended purpose of peaking capacity. A key
3 measure of success for the combustion turbine fleet is starting reliability. During
4 this twelve month period, the large combustion turbines at the Lincoln and Mill
5 Creek plants had 351 successful starts out of 365 requests for a 96.2% starting
6 reliability result.

7 These performance indicators are indicative of solid performance and good
8 operation and management of Duke Energy Carolinas' fossil fleet during the test
9 period.

10 Q. PLEASE DISCUSS THE PERFORMANCE OF THE COMPANY'S
11 HYDROELECTRIC FACILITIES DURING THE TEST PERIOD.

12 A. The hydroelectric fleet had outstanding operational performance during the test
13 period. The hydroelectric system equivalent availability was 88.2% with an
14 excellent low forced outage factor of 0.9%. As discussed in more detail below, two
15 of the Company's larger hydroelectric pumped storage units underwent extended
16 scheduled outages for necessary inspections and maintenance. Additionally, the
17 availability of hydroelectric generation is impacted by the amount of rainfall and the
18 elevation levels of the water systems on which the facilities operate. Duke Energy
19 Carolinas decreased conventional hydroelectric generation in February through
20 June 2006 to conserve water in reservoirs due to drought forecasts in the
21 Carolinas. As a part of the Federal Electric Regulatory Commission ("FERC")
22 hydroelectric relicensing process for the Catawba – Wateree project the Company
23 proposed a formal Low Inflow Protocol (LIP) to be included in the final agreement
24 among the stakeholders to be submitted to FERC; it was developed on the basis
25 that all parties with interests in water quantity will share the responsibility to

1 establish priorities and to conserve the limited water supply. The purpose of the
2 LIP is to establish procedures for reductions in water use during periods of low
3 inflow to the Catawba – Wateree Project. In May and June 2006, the Company
4 voluntarily initiated a Stage 1 drought condition in the Catawba – Wateree basin
5 per the proposed LIP.

6 Q. MR. MCCOLLUM, PLEASE DISCUSS OUTAGES OCCURRING AT DUKE
7 ENERGY CAROLINAS FOSSIL AND HYDROELECTRIC FACILITIES DURING
8 THE TEST PERIOD.

9 A. In general, planned maintenance outages for all fossil and larger hydroelectric
10 units are scheduled for the spring and fall to maximize the units' availability during
11 periods of peak demand. While most of these units had at least one small planned
12 outage during this test period with an average duration of one week to inspect and
13 repair critical boiler and balance of plant equipment, seven of the thirty coal units
14 had extended planned outages of five weeks or more. In addition to the scheduled
15 boiler, turbine and generator work performed during these extended planned
16 outages, burner replacements were successfully installed on Lee Units 1 and 2 to
17 reduce the NOx emissions from the units in support of the Ozone Early Action
18 Compact with the state of South Carolina. Electrostatic Precipitator replacements
19 were also successfully completed on the Marshall 4 and Dan River 3 units, greatly
20 improving the reliability and particulate collection efficiency for this environmental
21 control equipment. The hydroelectric pumped storage units at Bad Creek also
22 completed their planned inspection outages, repairing generators and other
23 equipment for improved unit reliability. Additionally, equipment system upgrades
24 were completed at Mountain Island as a part of the plant modernization project and

1 civil stability upgrades, which included dam stabilization, were completed at the
2 Bridgewater and Fishing Creek facilities, respectively.

3 Duke Energy Carolinas experienced an equivalent forced outage rate on its
4 coal fleet of 5.55%. "Equivalent Forced Outage Rate" is the percentage time a unit
5 is unavailable due to full or partial forced outages. The Company's seven base
6 load coal units achieved a 4.5% equivalent forced outage rate over this test period.
7 As discussed above, the hydroelectric system achieved excellent results during the
8 test period with no significant forced events.

9 Q. HOW DID THE COMPANY'S COAL UNITS PERFORM AS COMPARED TO THE
10 INDUSTRY?

11 A. The coal units operated well during the twelve month test period, achieving a fleet-
12 wide equivalent availability factor of 86.8%. As noted above, the base load,
13 intermediate and peaking unit classes each performed well, especially during the
14 critical summer peak months. These results compare favorably to industry
15 benchmarks provided by Navigant Consulting, Inc.'s GKS service for the most
16 recent five year period (2001 – 2005) which indicate that the median equivalent
17 availability for coal units is 86.2%. GKS is a member based benchmarking service
18 that collects performance and cost results from Duke Energy Carolinas and many
19 of its top performing peers (TVA, Southern, Progress, First Energy, etc.),
20 rigorously reviews the data for accuracy, and provides members with results and
21 analysis.

22 Q. DOES DUKE ENERGY CAROLINAS HAVE FUTURE GENERATION
23 RESOURCE PLANS THAT MAY IMPACT FUEL COSTS IN FUTURE PERIODS?

24 A. Yes. The Company has identified a need for additional base load,
25 intermediate and peaking capacity by 2011 in its most recent Annual Plan filed

1 with the Commission. To meet this need, Duke Energy Carolinas is seeking a
2 certificate of public convenience and necessity to construct two 800 MW state-of-
3 the-art, supercritical pulverized coal units at the Company's existing Cliffside
4 Steam Station in North Carolina. In addition to being highly efficient, these units
5 are planned to be designed to burn a wide variety of coals, which will both
6 provide opportunities for Duke Energy Carolinas to further diversify its coal
7 supply and, by, adding environmental controls and retiring older Cliffside units,
8 triple the plant's output and decrease the plant's sulfur dioxide emissions and
9 water use. Duke Energy Carolinas also has announced plans to develop an
10 application to the United States Nuclear Regulatory Commission for a combined
11 construction and operating license for a new potential nuclear plant located in
12 Cherokee County, South Carolina. Further, the Company is developing a
13 demand side management ("DSM") plan that takes into consideration a number
14 of efforts, including the work of the National Action Plan on Energy Efficiency co-
15 chaired by our CEO Jim Rogers. Duke Energy Carolinas continues to evaluate
16 renewable and emerging generation technologies as part of its supply portfolio.
17 All future projects and programs will be evaluated on a total cost basis to
18 determine the least cost resource options, however, the Company expects that
19 pursuing new high efficiency fossil and nuclear generation and the potential for
20 new DSM or energy efficiency programs will put downward pressure on fuel
21 costs.

22 Q. MR. McCOLLUM, DOES THAT CONCLUDE YOUR TESTIMONY?

23 A. Yes, it does.